

## CLAIMS

What is claimed is:

1. An active noise control system for reducing an undesirable noise, comprising:

5 a noise detector for deriving an input signal representative of the undesirable noise;

an interfering wave signal generator for processing the input signal to produce an interfering wave signal for generating a noise canceling wave;

10 a limiting amplifier having a specified output signal amplitude threshold, for outputting amplified interfering wave signal having an amplitude equal to or less than the specified output signal amplitude threshold; and

15 an electrical acoustic converter for propagating the noise canceling wave.

2. An active noise control system for reducing an undesirable noise, comprising:

20 a noise detector for deriving an input signal representative of the undesirable noise;

a limiting amplifier having a specified output signal amplitude threshold, for outputting amplified input signal having an amplitude equal to or less than the specified output signal amplitude threshold;

25 an interfering wave signal generator for processing the

amplified input signal to produce an interfering wave signal  
for generating a noise canceling wave; and

an electrical acoustic converter for propagating the  
noise canceling wave.

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3. An active noise control system for reducing an  
undesirable noise, comprising:

a noise detector for deriving an input signal  
representative of the undesirable noise;

10 a limiter having a specified output signal threshold, for  
outputting the input signal having an amplitude equal to or  
less than the specified output signal threshold;

15 an interfering wave signal generator for processing the  
input signal to produce an interfering wave signal for  
generating a noise canceling wave;

an amplifier for outputting amplified interfering wave  
signal; and

an electrical acoustic converter for propagating the  
noise canceling wave.

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4. An active noise control system for reducing an  
undesirable noise, comprising:

a noise detector for deriving an input signal  
representative of the undesirable noise;

25 an amplifier for outputting amplified input signal;

an interfering wave signal generator for processing the amplified input signal to produce an interfering wave signal for generating a noise canceling wave;

5 a limiter having a specified output signal threshold, for outputting the interfering wave signal having an amplitude equal to or less than the specified output signal threshold; and

an electrical acoustic converter for propagating the noise canceling wave.

10 5. An active noise control system for reducing an undesirable noise, comprising:

a noise detector for deriving an input signal representative of the undesirable noise;

15 a digital filter for processing A/D converted input signal to produce an interfering wave signal for generating a noise canceling wave;

20 a limiting amplifier having a specified output signal amplitude threshold, for outputting D/A converted, amplified interfering wave signal having an amplitude equal to or less than the specified output signal amplitude threshold; and

an electrical acoustic converter for propagating the noise canceling wave.